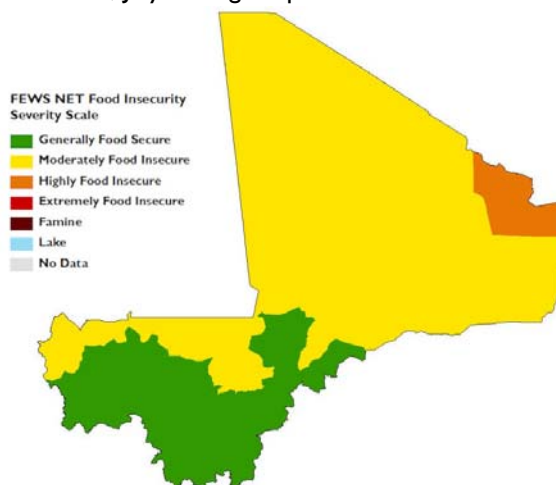


## MALI Food Security Outlook

## July through December 2008

- Crop production for the 2007/08 season was five percent above that of the previous season, and 22 percent above the five-year average. As a result, grain availability is stable in all parts of the country, even in the midst of the current hunger season (July through September), with sizeable inventories thanks to the previous good harvests. Conditions in livestock-raising areas across the country are also quite favorable. Given the sub-regional and international environment (marked by rising prices for fuel and food), grain prices, which have been running high since the beginning of the year, are not expected to decline. However, most of the country should not experience major food security problems between now and the coming harvests in October. Nevertheless, monitoring activities in the northeastern reaches of the Kidal region, and specifically in Tinzwatène district, should be increased given problems with armed Tuareg bandits in that area (Figure 1).

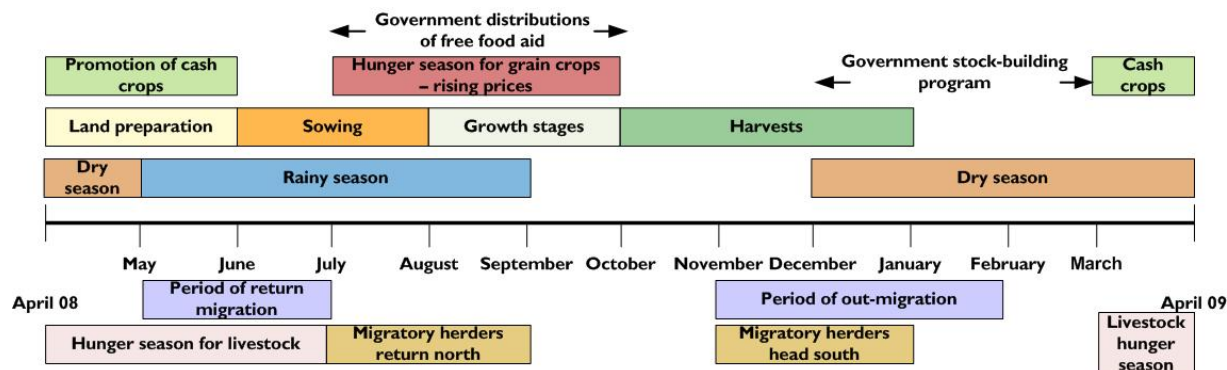
**Figure 1.** Current estimated food security conditions, July through September 2008



Source: FEWS NET Mali

- The most likely food security scenario from October through December 2008 is one of good grain availability in most parts of the country following a generally average harvest. However, food prices will continue to rise, further weakening consumer purchasing power on grain markets across the country. The animal population will enjoy good conditions in livestock-raising areas. Though most of the country's population should not experience major food security problems, the northern part of the country is chronically food insecure. Moreover, in this scenario, there will be continuing problems with armed Tuareg bandits in the northeast.
- In the worst-case scenario, a poor agropastoral season will disrupt grain flows, create grain shortages, and drive prices up beyond the purchasing power of most Malian households. Herd movements will be disrupted, creating unusually large concentrations of animals and promoting outbreaks of epizootic diseases and conflicts, further aggravating food security conditions. In the northern part of the country, continuing or heightened civil strife due to problems with armed Tuareg bandits in the northeast will make residents of this area extremely food insecure.

### Seasonal calendar and critical events timeline



Source: FEWS NET Mali

## Current food security conditions, July through September 2008

The 2007/2008 agricultural season marked Mali's third consecutive year of good grain harvests. Total grain output for the season is estimated at 3,885,477 metric tons (MT), compared with a figure of 3,693,240 MT for the 2006/2007 season, translating to a five percent production increase from that previous year, and 22 percent above the five-year average. Based on estimates of commercial imports and exports and imported food aid for the current crop year, the projected grain balance sheet shows a net 892,060 MT surplus, including 152,714 MT of rice, 18,543 MT of wheat, and 757,892 MT of coarse grains. In fact, following three consecutive years of good harvests and the establishment or strengthening of grain banks in all districts, all sales outlets had adequate grain supplies.

The current 2008/09 growing season is off to a good start in all major crop-growing areas. Farming activities and crop growth and development have been going well thanks to beneficial rainfall. There has been regular precipitation, and a well-balanced spatial-temporal distribution of rainfall since the beginning of the rainy season in May. Households in all major farming areas around the country are busy working their land, relying on the current winter growing season to produce enough food to meet most of their food needs.

At the same time, the hunger season (July through September) is already underway. Grain prices peak at this time of year, as supplies dwindle and reserves are depleted. As a result, a normal seasonal upswing in malnutrition rates for children under five years of age – attributable to a variety of different factors such as shortages of safe drinking water and sanitation facilities, seasonal illnesses (e.g., malaria, diarrhea), and the lack of a balanced diet – is expected. Though grain availability is still generally good in all parts of the country and all segments of the population have adequate food access, the baseline survey conducted in June of 2007 for the extension of sentinel sites showed that trends in the third dimension of food security, namely food use, have not systematically been in line with this picture. In fact, acute malnutrition rates are still running high (from 7.8 to 16.1 percent, depending on the region), as are stunting rates (ranging from 13.8 percent in Bamako to 33.4 percent in Sikasso). These rates are down slightly from EDSM (Population and Health Survey) IV 2005 figures. However, if, after a good start-of-season, the 2008/09 growing season continues to go well, market supplies could improve as traders and farmers still holding onto their grain inventories begin to unload their crops. This could slow the rise in prices and provide some relief for grain-buying households. In the interim, as usual, with the hunger season underway, all households will need to better manage their grain stores until the upcoming harvest.

In the meantime, the hunger season for livestock and pastoralists is over. The earlier-than-usual definitive start of this year's rainy season improved grazing and animal watering conditions in all parts of the country. Milk production for household consumption and sale should improve over the next few weeks. The improvement in animal body conditions will bolster livestock prices for herders, particularly with the upcoming year-end holiday season and the celebration of *Tabaski*. Animal health conditions are relatively calm, and pastoralists and agropastoralists should have relatively good grain access on domestic markets.

Prices for grains such as millet and rice, and for staples such as milk and oil, are running higher than at the same time last year and above the five-year average (2003 to 2007) for the same time of year. Nevertheless, despite rising grain prices, households across the country still have access to regularly provisioned markets. The current high prices are partly seasonal, but there are also international factors at play, such as the high world market prices of fuel. The consistently high prices since harvest time in December of last year and the current upward movement in prices are impairing food access in

**Table 1.** Scenario assumptions and indicators

### Most likely food security scenario

- Generally average 2008/09 harvest.
- Adequate grain availability following three consecutive years of good harvests.
- Steady rise in grain prices, and higher prices than last year.
- Fair outcome for the agropastoral season across the country.
- Good conditions in livestock-raising areas.

### Worst-case food security scenario

- Major climatic anomalies occur, causing the 2008/09 agropastoral season to go poorly and disrupting grain trade flows.
- Very tight markets: low supplies and high prices.
- Plunge in incomes and losses of livestock.
- Food shortages in at-risk areas.
- Rise in malnutrition rates.

structurally food-insecure areas of the country, particularly in the case of farm families, agropastoralists, and city dwellers without fixed incomes and reliant on the market to supplement their food supplies.

Northern Mali is traditionally a food-insecure area due to climatic anomalies. This part of the country has recurrent food security problems caused, in part, by grain production deficits and, in part, by the area's extreme isolation. Conditions for the implementation of food access strategies, such as craft-making, small-scale trading, truck farming, and out-migration by local area residents, are rather good. Final forecasts of food insecurity risks for 2007/08 identified 34 districts as economic hardship areas (slightly food-insecure), with a population of approximately 376,403 people. These included Kayes (10), Koulikoro (6), Ségou (1), Mopti (4), Timbuktu (3), Gao (4), and Kidal (6) regions. Despite smaller harvests of grain and/or truck crops, residents of these areas will be putting their food access strategies to work in a relatively favorable local, national, and sub-regional socioeconomic environment.

Monitoring activities in the northeastern reaches of the Kidal region and, more specifically, in Tinzwatène district, should be increased given problems with armed Tuareg bandits in that area. Civil security issues, which are blocking supply channels for local residents and could force them to flee to other more secure areas, are threatening to disrupt their coping strategies and limit food access.

### Start of the 2008/09 growing season

The rainy season got off to an early start in major farming areas around the country. In fact, there has been regular precipitation and a well-balanced spatial-temporal distribution of rainfall since the rains began back in May. As a result, climatic conditions at the start of the 2008/09 growing season are good, with:

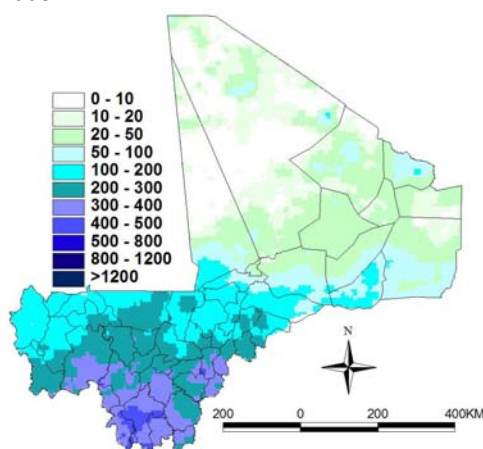
- normal to above-normal rainfall levels and a well-balanced pattern of rainfall;
- rivers rising at a good pace;
- relatively calm plant health conditions; and
- good progress in farming activities.

#### (a) Rainfall conditions

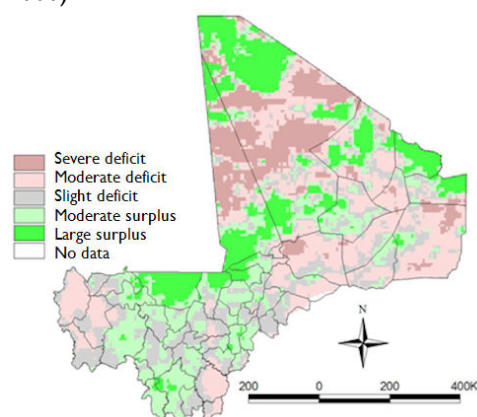
Cumulative rainfall totals as of July 10<sup>th</sup> at rainfall gauging stations in regional capitals across the country were normal to above-normal and near or above inter-annual averages (1971-2000), running 55 percent above-average in Kayes, 72 percent above-average in Bamako City, 110 percent above-average in Mopti, 28 percent above-average in Gao, and 46 percent above-average in Kidal. Moreover, rainfall amounts at most stations were higher than at the same time last year.

**Figure 2.** Satellite estimate of cumulative rainfall totals from the 1<sup>st</sup> dekad of April to the 1<sup>st</sup> dekad of July 2008

Cumulative rainfall (mm): April 1 - July 10, 2008



Cumulative rainfall anomaly/average (1971-2000)



Source: FEWS NET/USGS

Satellite rainfall estimates for the period from April 1<sup>st</sup> through July 10<sup>th</sup> corroborate the good rainfall conditions reported since the beginning of the season. Conditions across the country are satisfactory compared with the average for the same

time of year (Figure 2). This rainfall has been a contributing factor in the good progress of farming activities in all crop-growing areas.

### (b) Stream flow conditions

With the rainy season getting off to an early start, rivers around the country are steadily rising. Gauge heights as of July 10<sup>th</sup> were above inter-annual averages at all gauging stations, with the exception of Koulikoro and Kirango on the Niger River and, in all cases, were higher than at the same time last year (Figure 3). Currently, water levels are considered good in all areas in which the progress of farming activities depends on the height of rivers and streams.

### (c) Plant health conditions

On the whole, plant health conditions are relatively calm. However, there have been reports of:

- localized grasshopper hatchings in the Kayes, Koulikoro, and Sikasso regions, with no effect on area crops;
- grain-eating birds (*Quéléa quéléa*) in the Ségou and Mopti regions. The pressure from grain-eating birds in Ségou has greatly diminished with the harvesting of off-season rice crops. The flocks of birds sighted in Kayes have dispersed since the beginning of the rainy season; and
- early infestations of defoliating caterpillars on rice seedbeds in the Office du Niger area of Ségou (Molodo and Kolongo), where 20 caterpillar-infested hectares of rice fields have been treated.

Looking ahead, grasshopper hatchings in the Kayes, Koulikoro, Ségou, and Mopti regions will multiply. The current flocks of grain-eating birds in rice-growing areas of Ségou and Mopti will disperse and new flocks will form with the beginning of the breeding season.

Though ecological conditions are becoming increasingly conducive to locust activity in all desert locust breeding areas, the situation is still quiet. As of the end of July, there have been no sightings of locusts. With the locust situation quiet and given current security threats, there are no survey-treatment teams out in the field for the time being.

### (d) Impact of climatic factors on the start-of-season

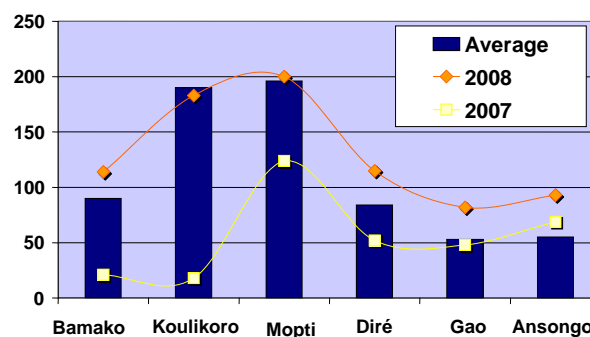
On the whole, favorable rainfall, stream flow, and plant health conditions helped get the 2008/09 growing season off to a good start. In general, farmers in major crop producing areas across the country began sowing rain-fed millet, sorghum, corn, and rice crops at the end of May and beginning of June, and are still planting all types of crops (millet, sorghum, corn, rain-fed rice, fonio, grain cowpeas, cotton, groundnuts, earthpeas, and sesame). In general, the first seedlings are in the sprouting-leaf formation stage.

Farmers in irrigation districts (*Offices*) and village irrigation schemes are preparing seedbeds and transplanting rice crops. The first transplanted rice crops in irrigation districts and village irrigation schemes are in the recovery stage.

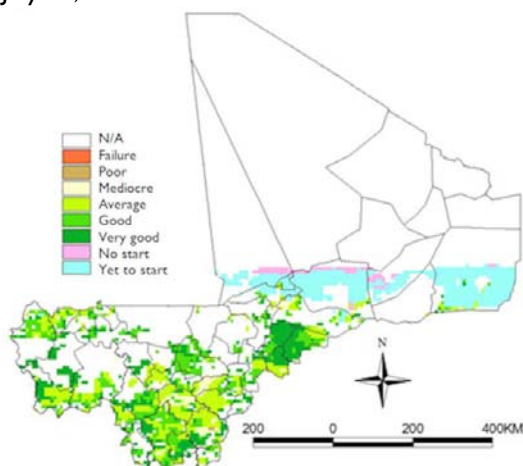
As of July 10<sup>th</sup>, in general, realization rates for the planting of crops are running ahead of last year, except in the case of cotton, whose planting rate is at 43 percent compared with 56 percent at the same time last year.

A look at flood recession crops in the Timbuktu region shows millet and corn crops in the height growth stage, groundnut crops in the flowering stage, and potato, cowpea and okra crops in the branching-seed setting stage.

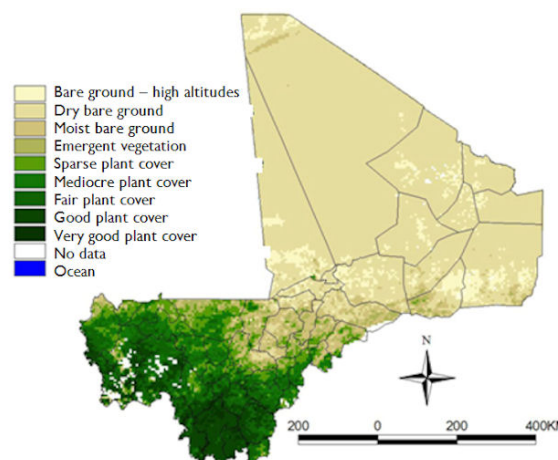
**Figure 3.** Comparison of the level of the Niger River as of July 10<sup>th</sup> (centimeters)



Source: GTPA/DNH; Graphic: FEWS NET Mali

**Figure 4.** Water requirement satisfaction index (WRSI) as of July 10, 2008

Source: FEWS NET/USGS

**Figure 5.** Pasture conditions as of July 10, 2008

Source: FEWS NET/USGS

In sum, farming activities are moving ahead on schedule. Crop growth and development is looking good in all parts of the country. The 2008/09 growing season is off to a good start in all major crop producing areas. Looking ahead, current soil water reserves and expected rainfall should allow land preparation and sowing activities to proceed on schedule and should meet crop water requirements, as confirmed by satellite imagery of the crop water requirement satisfaction index (WRSI) (Figure 4).

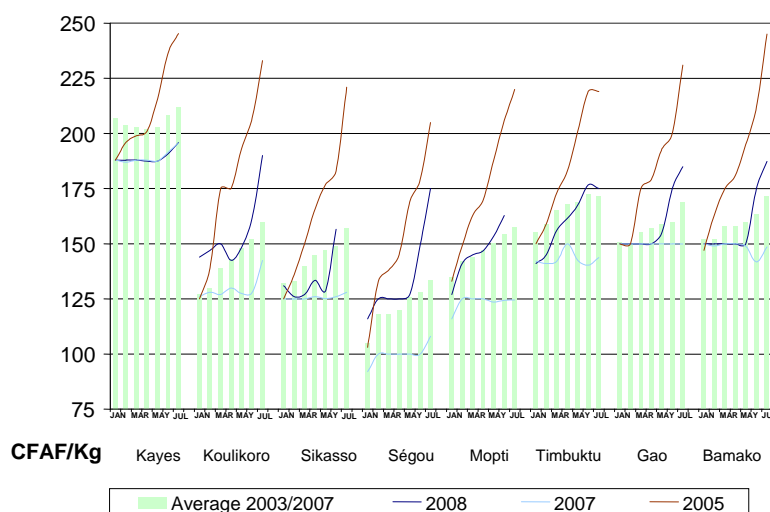
The lean period for livestock is over. Rainfall conditions are helping to improve pasture resources. There is significant natural pasture availability and, in general, the land recovery rate is satisfactory (Figure 5). Livestock conditions are improving. Pastoral households have milk products for household consumption, and are also selling part of their milk production to generate income to meet household needs. Thus far, reported herd movements within and between different areas are normal. Migratory herds are in the process of heading back to rainy season grazing lands.

## Markets, trade, and food access

With the beginning of the hunger season (July through September), market grain supplies are growing scarce and, in general, prices are peaking. As usual, the high prices typical of this time of year are a reflection of the uncertainty of farmers and traders over the progress of the growing season. Dwindling inventories also affect price behavior during the hunger season.

### Coarse grain markets

As of July, retail markets across the country still had adequate supplies of coarse grain crops. Consumer prices for millet in mid-July on retail markets in regional capitals around the country were still climbing and were running higher than at the same time last year, and above the five-year average for the same time of year. However, market prices

**Figure 6.** Nominal retail prices for rice on consumer markets in regional capitals (January through July 2008, 2007 and 2005 and 2003/07 average)

Source: OMA - FEWS NET/Mali



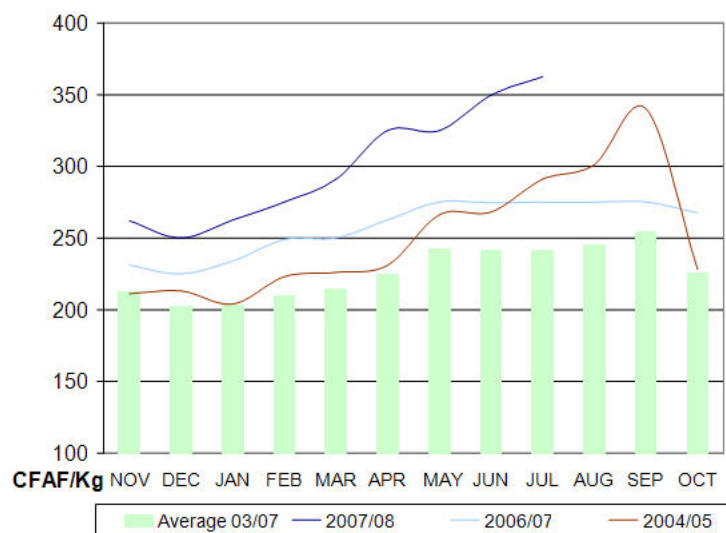
around the country were still trailing figures for 2005, which was a year of strong pressure on domestic grain markets (Figure 6). This year's high prices are a worldwide phenomenon caused, mainly, by the steady rise in fuel prices.

A continuation of the good start-of-season conditions for the 2008/09 growing season over the coming weeks would eventually improve market supplies, in which case traders and farmers still holding grain inventories would begin to unload their crops onto markets around the country.

### Rice market

Movements in rice prices are following the same upward trend as in June. The price of rice in mid-July of this year on the Ségou market, in what is also the country's largest rice-growing area, was 32 percent higher than at the same time last year, 50 percent above the five-year average, and 25 percent above 2004/05 prices (Figure 7). External factors tied to world market conditions explain these climbing prices. In terms of food security, the high price of rice continues to erode household purchasing power, particularly in the case of poor farm families, agropastoralists, and city dwellers without fixed incomes relying on the market to supplement their food supplies.

**Figure 7.** Nominal retail prices for rice on markets in Ségou (2007/08, 2006/07, 2004/05 and 2003/07 average)



Source: OMA - FEWS NET/Mali

### Livestock market

Supplies of animals for sale on livestock markets are normal for this time of year. Average July prices for livestock were the same or higher than June prices. There was a slight deterioration in terms of trade for livestock/grain between June and July. However, current price ratios are above the five-year average for this time of year, which is to the advantage of pastoralists.

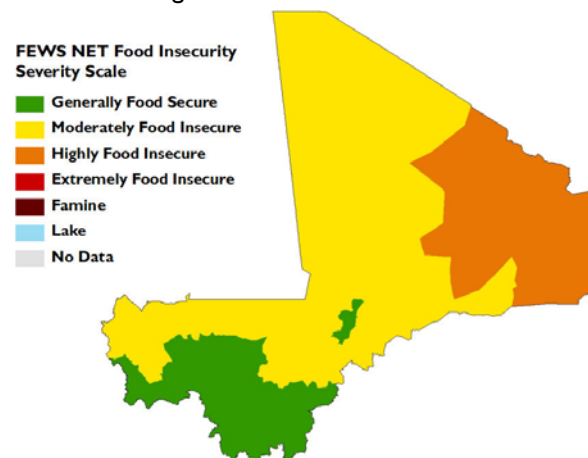
### Most likely food security scenario, October through December 2008

Given what has been, thus far, a good start-of-season, and taking into account agropastoral production, alternative sources of cash income, trends on grain markets, and the coping strategies of different population groups, under the most likely scenario for the period from October through December of this year, most households across the country should not experience major food security problems between now and the end of the forecasting period in December (Figure 8).

The supply of animals for sale on livestock markets should increase in the early part of October, particularly in the case of small animals, in anticipation of the upcoming year-end holiday season and the celebration of *Tabaski*.

By the same token, should high world market prices continue to drive up the cost of basic foodstuffs, these high food prices could affect household purchasing power, particularly in structurally food-insecure areas of the country. In this scenario, grain prices would continue to rise, surpassing last year's levels and

**Figure 8.** Most likely food security conditions, October through December 2008



Source: FEWS NET Mali

particularly stressing farm families, agropastoralists, and city dwellers without fixed incomes and dependent on the market to supplement their food supplies.

The northern part of the country is traditionally a food-insecure area due to climatic anomalies. This part of the country has recurrent food security problems caused, in part, by grain production deficits and, in part, by its extreme isolation. This year, conditions for the implementation of food access strategies such as craft-making, small-scale trading, truck farming and out-migration by local residents are quite good.

Monitoring activities in the northeastern reaches of the Kidal region and, more specifically, in Tinzawatène district, should increase given problems with armed Tuareg bandits in that area. However, the situation is not expected to deteriorate any further during the last quarter of the year.

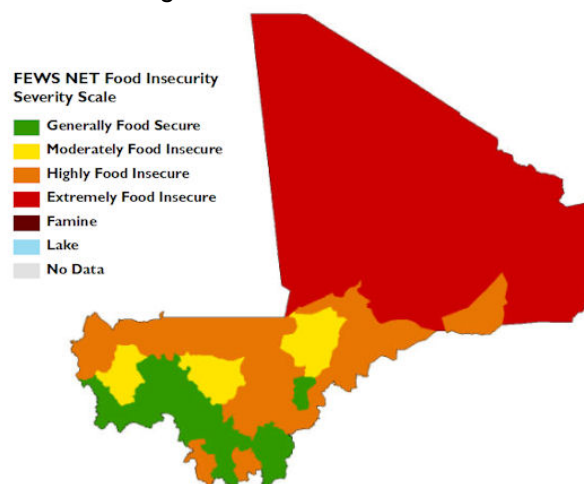
### Worst-case food security scenario, October through December 2008

In this scenario, major climatic anomalies threaten the agropastoral season, disrupting grain trade in all parts of the country with the sole exception of the south, and creating grain shortages in high-demand areas (Figure 9). Already high market prices would continue to climb. There would be unusual, large-scale population movements and widespread malnutrition problems among those segments of the population with inadequate food access on local markets.

The worst-case scenario for Mali, although unlikely to materialize, could have numerous implications, including:

- A poor 2008/09 agropastoral season, with below-average production outcomes;
- Inadequate grain availability to meet demand, with tight grain markets due to low supplies and price speculation in the face of grain shortages;
- Disruptions in normal herd movements in search of better conditions, creating unusually large concentrations of animals and promoting outbreaks of epizootic diseases and conflicts. Fattened animals will begin to lose weight, which will affect their selling price;
- A deterioration in the purchasing power of pastoralists in the face of high market prices;
- Heightened food security problems in high-risk areas (resource-poor and/or remote areas) in the northern reaches of the Kayes and Koulikoro regions and in the Mopti, Timbuktu, Gao and Kidal regions; and
- A steeper than usual rise in malnutrition rates.

**Figure 9.** Worst-case food security conditions, October through December 2008



Source: FEWS NET Mali